

## PROJECT DESCRIPTION

## GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AND STREET LIGHTING AT THE INTERSECTION OF MD 235 (THREE NOTCH ROAD) AND MD 944D/AIRPORT VIEW DRIVE IN ST. MARY'S COUNTY, MARYLAND. MD 235 (THREE NOTCH ROAD) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

## INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 235 APPROACHES OPERATING CONCURRENTLY AND THE MD 944D/AIRPORT VIEW DRIVE APPROACHES OPERATING SPLIT PHASE.

AN EXCLUSIVE LEAD LEFT-TURN PHASE WILL BE PROVIDED FOR THE NORTHBOUND MD 235 APPROACH AND AN EXCLUSIVE LAG LEFT-TURN PHASE WILL BE PROVIDED FOR THE SOUTHBOUND MD 235 APPROACH.

## CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, SYSTEM PACKAGE, VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

## PHONE DROP

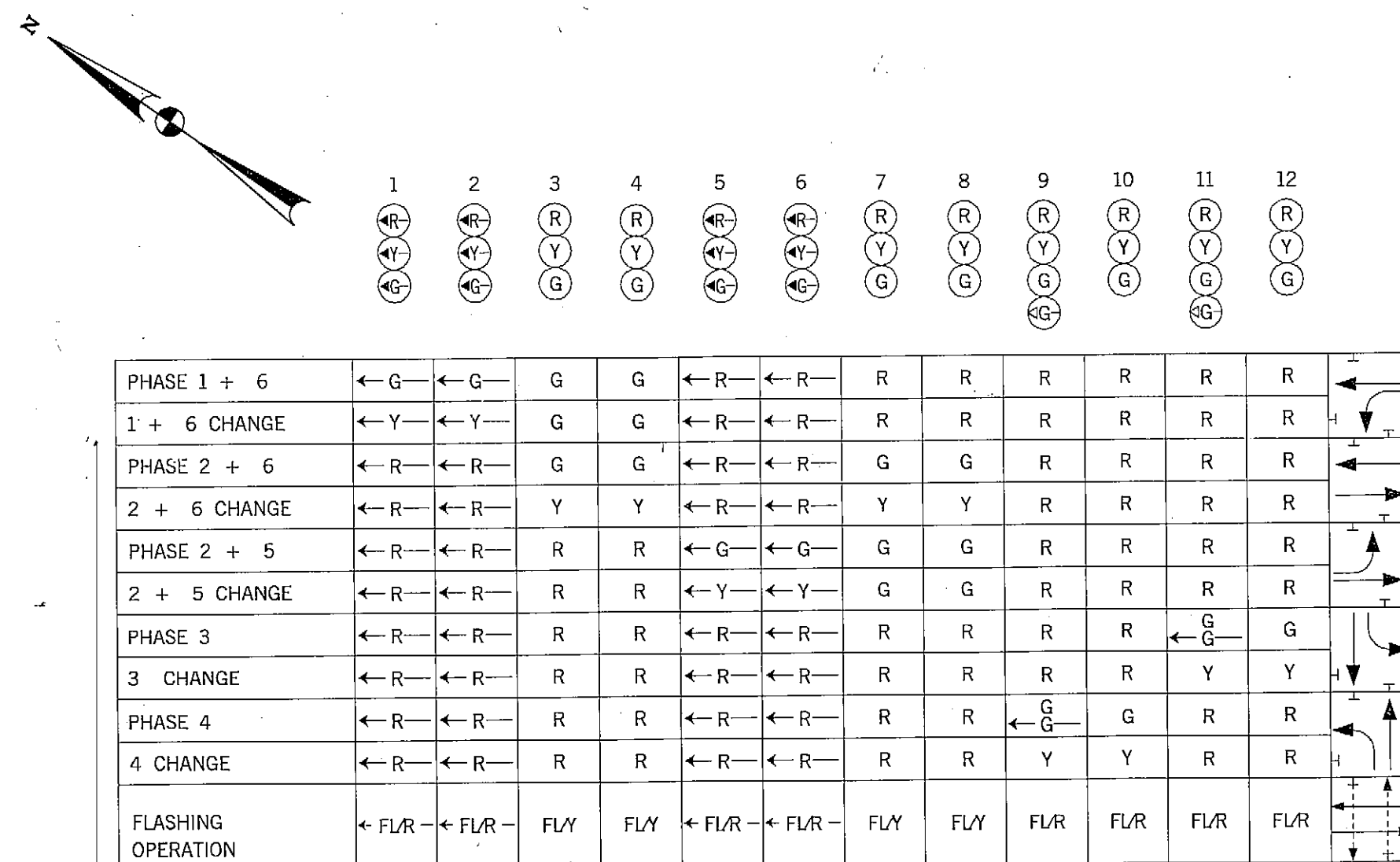
UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

## MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.04-01 (SHOULDER WORK) STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)  
STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE) STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)  
STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)

## PHASE CHART



## WIRING KEY

- A B C D E F G H I J K L M N P Q R S T U V W X Y Z
- 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
  - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
  - 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) - TRAY CABLE
  - VIDEO CAMERA DETECTION LEAD-IN CABLE
  - MICROLOOP PROBE LEAD-IN
  - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
  - 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
  - ML - MICROLOOP PROBE SET
  - PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
  - ⋆ - 3/4 IN. X 10 FT. GROUND ROD

I/C - 12 PAIR SELF-FILLED COMMUNICATION CABLE

## EQUIPMENT LIST "A"

## A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9016	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9044	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION MONITOR HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
9571	273 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : <ul style="list-style-type: none"><li>3 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT</li><li>4 EACH D3-2 SIGN (VARIABLE x 36 IN.) - GROUND MOUNT</li><li>1 EACH R3-5(R) SIGN (30 IN. x 36 IN.) - MAST ARM MOUNT</li><li>1 EACH R6-1(R) SIGN (36 IN x 12 IN.) - GROUND MOUNT</li><li>1 EACH R6-1(L) SIGN (36 IN x 12 IN.) - GROUND MOUNT</li><li>2 EACH M-5(4) SIGN (108 IN x 48 IN.) - GROUND MOUNT</li><li>1 EACH W3-3 SIGN (36 IN. x 36 IN.) WITH "NEW" PANEL (24 IN. x 24 IN.) AND FLAG - GROUND MOUNT</li><li>4 EACH W3-3 SIGN (48 IN. x 48 IN.) WITH "NEW" PANEL (24 IN. x 24 IN.) AND FLAG - GROUND MOUNT</li></ul>

## EQUIPMENT LIST "C"

NO EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

## PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

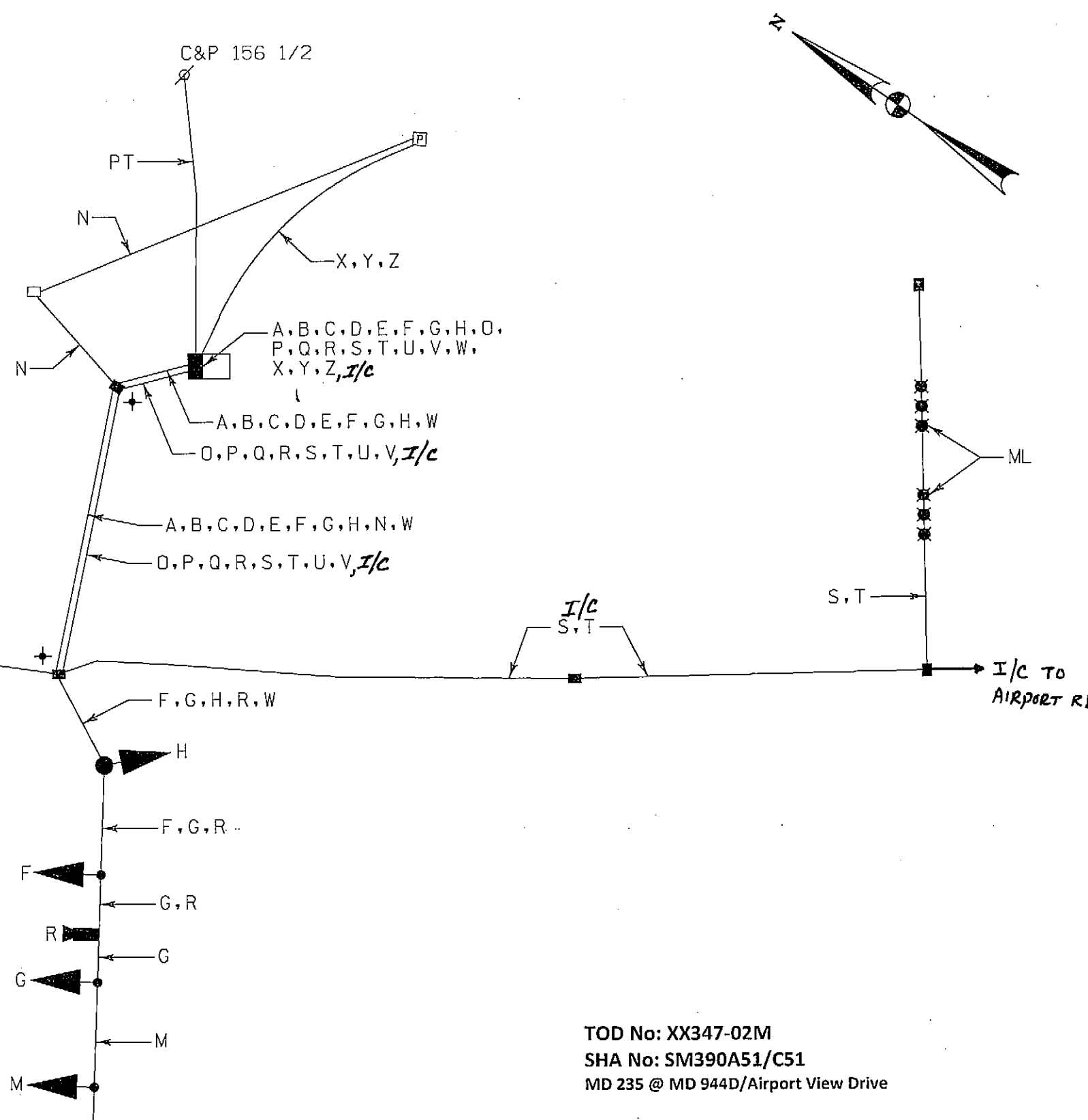
MS. KIMBERLY TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 841-1019

MR. JOHN S. MAYS  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 841-1013

MR. MIKE HUBER  
DISTRICT UTILITY ENGINEER  
PHONE: (410) 841-1039

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

## WIRING DIAGRAM



TOD No: XX347-02M  
SHA No: SM390A51/C51  
MD 235 @ MD 944D/Airport View Drive

## EQUIPMENT LIST "B"

## B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EACH	MAINTENANCE OF TRAFFIC
2002	3 C.Y.	TEST PIT EXCAVATION
5001	16 S.F.	HEAT APPLIED WHITE PERM PREF THERMO PVMT MARKING ARROWS
5005	130 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	90 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
6003	4375 L.F.	TRAFFIC BARRIER W BEAM USING 6 FOOT POST
6004	2 EACH	TYPE C TRAFFIC BARRIER END TREATMENT
6005	2 EACH	TYPE K TRAFFIC BARRIER END TREATMENT, ANY OPTION
6006	8 EACH	W BEAM BARRIER REFLECTIVE DELINEATORS
8006	1 EACH	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8018	1 EACH	MAST ARM POLE & 50 FT MAST ARM ANY 'T' DIMENSION
8020	4 EACH	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8021	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8024	1 EACH	TWIN MAST ARM POLE & 50 FT/70 FT MAST ARMS ANY 'T' DIMENSION
8025	4 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8028	5000 L.F.	12 - PAIR COMMUNICATION CABLE, OVERHEAD/UNDERGROUND
8033	390 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8035	4600 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	315 L.F.	WOOD SIGN SUPPORTS UP TO 4 X 6
8038	273 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8040	225 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8044	510 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG - THHN/THWN
8046	26 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	38 EACH	12 INCH LED SIGNAL HEAD SECTION
8056	100 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	1550 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8058	420 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
8065	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT

SHA

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 235 (Three Notch Road) and  
MD 944D /Airport View Drive

## GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 04/20/2010 CONTRACT NO. XX3475185

DESIGNED BY S. Bloss COUNTY St. Mary's  
DRAWN BY S. Bloss LOGMILE 18023518.46  
CHECKED BY N. Leary TMS NO. J925  
F.A.P. NO. TOD NO.

TS NO. 4754 DRAWING TSP-3 OF 3 SHEET NO. 5 OF 5

WR&A

WHITMAN, REQUARDT  
& ASSOCIATES, LLP  
801 South Caroline Street, Baltimore, Maryland 21231

PLOTTED: 04-20-2010  
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